

# Value-Added Agriculture Policies Across the 50 States

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**B**ecause rural per capita incomes have historically been lower than urban incomes, the Federal Government has long been interested in policies supporting farmers' income or promoting non-farm job opportunities in rural areas. Many States also have policies that address these concerns. We can get a better understanding of efforts to support farmers' income and provide job growth by looking at State programs, particularly programs of State assistance to businesses that process agricultural commodities. In this article, we define value-added agriculture, describe these policies across the 50 States, and discuss how the various policies may work.

The production of primary agricultural commodities is just one part of agribusiness's contribution to national income and output. Farming alone employs less than 2 percent of the U.S. workforce, and generates an equivalent portion of U.S. GDP. The U.S. agro-industrial

*State support for value-added agriculture has a long history. Currently, every State explicitly supports value-added agriculture in some way. The programs offered relate to the types of agro-industry in each State. State-grown product promotion programs are the most popular. At least 37 States target financial and technical assistance to businesses that use farm products. The effect of agro-industry support on rural income depends on its impact on new business location, productivity, rural unemployment, and whether or not owners and employees are in rural areas.*

complex, however, employs 18 percent of the workforce (25 million persons) and returns \$1.4 trillion in income to the people who work, own, or invest in the industries. That income is the value added originating in farming and in agricultural handling and processing sectors.

The United States specializes in raw agricultural commodities, exporting 47 percent of the wheat produced during the 1999-2000 crop year, 21 percent of the corn, and 33 percent of the soybeans without further processing. The United States is a net importer of processed products: for example, 19 percent (by weight) of the canned foods consumed are imported. What if the United States were to do more processing before exporting, or processed a larger share of domestic output for local consumption? Could this bring higher returns to U.S. farmers? Can such activities reduce rural underemployment and help rural areas

capture a larger share of national income? These are the types of questions raised at the national level.

State governments and rural citizens are more concerned about local income than about international trade. Farmers want to know why there aren't more and closer processing facilities at the next stage of the marketing chain. Nonfarmers want more job opportunities. Locally, rural people are interested in such questions as:

- How does net farm income depend on the number and locations of processors?
- What determines the number and location of processing facilities when there are no government programs?

This article discusses these issues and describes various State policies to assist agricultural processing.

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## Why Aren't There More and Closer Value-Added Agriculture Facilities?

A farmer logically benefits from more and nearer agro-industry facilities since net farm income stands to gain from lower transportation costs and heightened competition among buyers. The farther away a farm is from an elevator or plant, the higher transport costs and the lower net farm revenues are. Field crops and livestock are called shipping goods because farmers are responsible for transporting them to the next stage (elevator, plant, etc.) in the marketing chain. The fewer the facilities, the higher the concentration is on the buyer side and the less bargaining power farmers may have.

Given the efficient size of the facility, agro-industry location depends on the tradeoffs between the benefits of being close to farms and the costs of being close to competitors, far from nonfarm inputs, or far from markets. Because most agro-industry products are also shipping goods, the farther away a facility is from transshipment points or retail markets, the lower is its net revenue. Some transport costs might be avoided by building many small plants. But this would mean higher fixed costs and lower returns to investment in the industry. Large-scale agro-industry establishments also need access to many farms, or a port, to reduce the risk or cost of an interruption in input supply from any one source. But costs may rise if there are many plants competing in local input and output markets and operating below the minimum efficient scale.

If a location has too few plants, a new plant may be profitable. Thus, there can be market incentives to expand agro-industry. But there may be problems in rural



Farmer harvesting corn. Photo courtesy Digital Stock.

areas, such as higher cost/lower access to capital, lower returns to rural entrepreneurial expertise, insufficient predictability or information with respect to distant markets, and environmental or zoning restrictions.

### State Policies and Programs

States address the problems of access to capital, entrepreneurial expertise, marketing, and legal restrictions with a variety of programs targeting value-added agriculture.

Through data on State budgets and legislation, along with telephone and mail communications with State government personnel, we documented over \$280 million budgeted for value-added agriculture across the 50 States in 1998-99. Every State offers at least one value-added agriculture program (table 1).

State labeling and State-grown product promotion programs address the market information problems that may undermine the expected profitability of value-added agriculture. All but two States (Arkansas, Louisiana) promote and/or certify State products. Some

States (e.g., Georgia, Kentucky) also facilitate branding by providing applications for certification online. Connecticut, Hawaii, Kentucky, Montana, New Jersey, North Dakota, Oregon, and Washington have three or more labeling, marketing, and promotion programs.

Thirty-seven States subsidize loans or offer loan guarantee programs, grants, tax abatements, or other financial incentives to businesses that process agricultural products (fig. 1). All financial assistance programs are coupled with

Table 1

#### Types of State value-added agriculture programs, 1998-99

*Promotion and State labeling are the most popular State value-added agriculture programs*

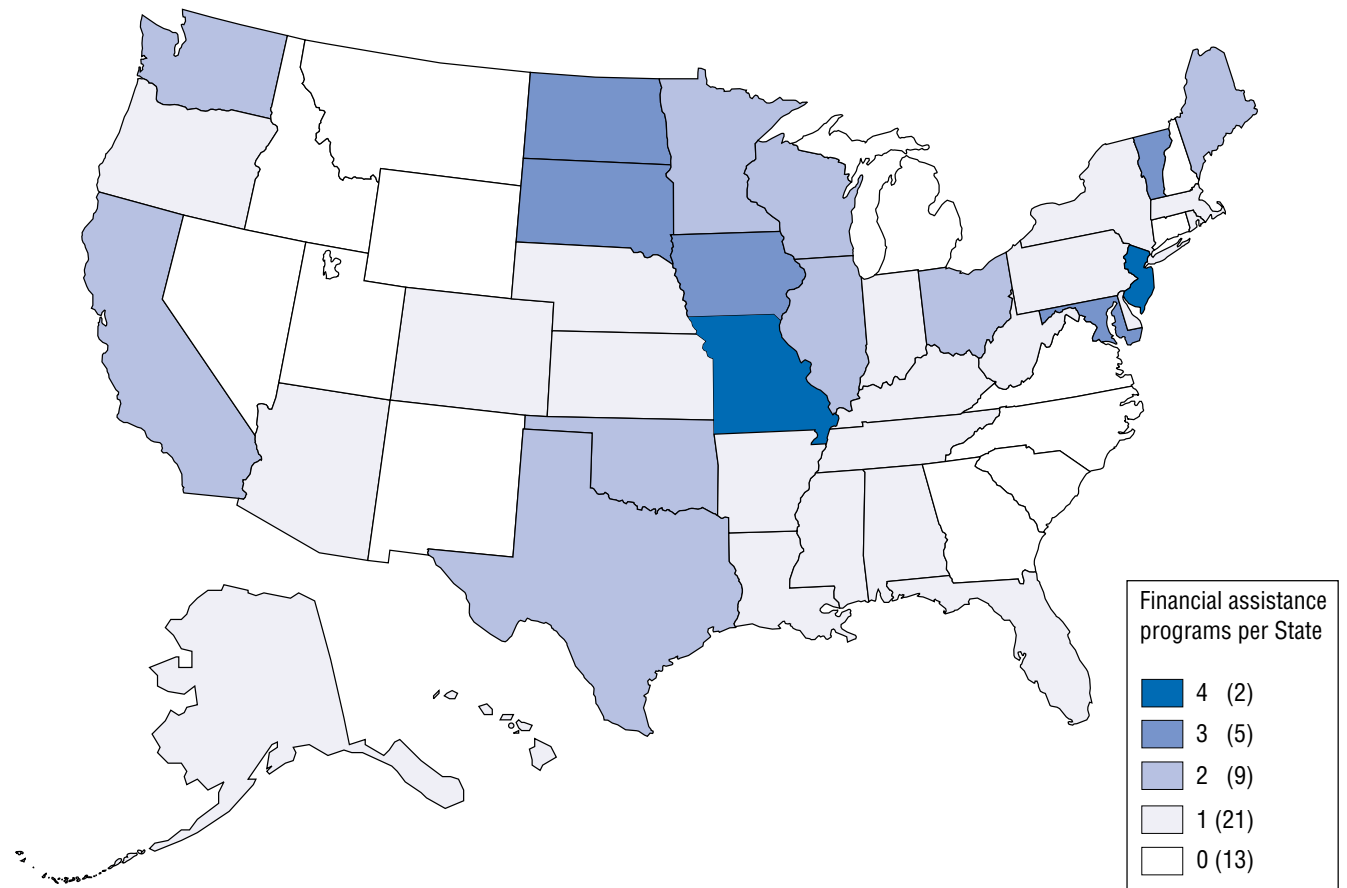
|                                   |            |
|-----------------------------------|------------|
| Promotion and State labeling      | 96         |
| Business and technical assistance | 77         |
| Loans (35) and grants (27)        | 62         |
| Directories                       | 35         |
| Market research                   | 27         |
| Jobs and training                 | 4          |
| Legal issues                      | 3          |
| <b>Total</b>                      | <b>304</b> |

Source: State Internet sites and personal communication with State government agency personnel.

Figure 1

# Financial assistance programs

Thirty-seven States offer various forms of financial assistance to value-added agriculture firms



Source: State Internet sites and State government agencies.

business planning technical assistance. These programs address the twin problems of insufficient financial expertise and financial capital. By reducing the costs to lenders of making loans, the State shares in the risks of financing new value-added agricultural activities, which are intended to benefit more than just the principals involved.

States expect effective programs to expand demand for local farm output, to capture for farmers a larger share of consumers' willingness to pay for higher quality, to help countervail market power on the nonfarm industry

side, and to increase rural nonfarm employment opportunities. The sponsoring legislation purports to "strengthen the economic viability of production agriculture and agribusiness" (New York), "increase sales of [our State's] agricultural products" (Texas), "increase competitiveness" (Michigan), and "aid the economies of rural communities" (Missouri).

State support for value-added agriculture has a long history (fig. 2). Western States appear to have been the early birds. The first reported program began in North Dakota in 1919 when the Bank of

North Dakota provided financial assistance to start up agricultural processing firms. Oregon, Arkansas, and Hawaii also initiated programs before 1970. Most States initiated programs after 1984.

States use bond financing (e.g., Maryland, Maine, Rhode Island) and revenues from State income and sales taxes (e.g., North Dakota, Texas, Wisconsin), user taxes (Iowa), license fees (Kentucky), and even severance taxes (Arkansas, Wyoming) to finance the programs.

State departments of agriculture are typically responsible for product promotion programs and

trade directory projects. Ethanol programs are also under departments of agriculture. Loan and/or grant programs are the responsibilities of the State treasurer, departments of economic development or commerce, or State development finance authorities, often jointly with the State department of agriculture. State university and extension systems are responsible for most production technical assistance and market research programs.

There is no evidence that States with relatively higher farm employment offer more programs. Some States with many farmers offer few programs, and vice versa. But there is a clear relationship between the types of production agriculture in a State and the types of programs offered. For example, States bordering major rivers and coasts often offer aquaculture programs, while Corn Belt States have ethanol programs (fig. 3).

### Value-Added Agriculture: Rural or Urban?

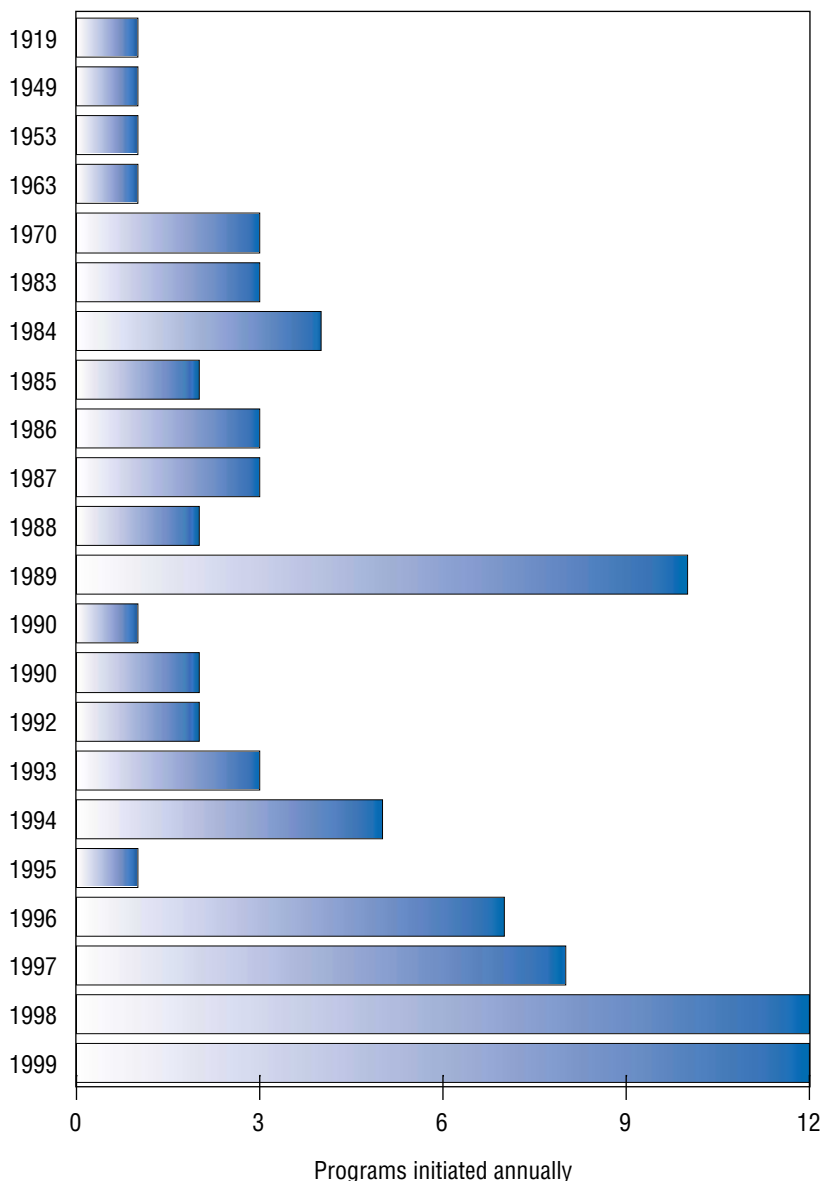
Though some States emphasize rural development as the objective (Iowa, Illinois, Michigan, Missouri, Oregon, California, Colorado, Vermont, Massachusetts, Pennsylvania, New Jersey, Maryland, Delaware), having more agro-industry facilities does not necessarily lead to more rural income or employment. The effect on non-farm rural income and employment depends on whether the value-added agricultural firms locate in rural areas and whether owners and employees reside in rural areas.

Attempting to capture more agro-industry value-added in rural areas, three-fifths of sponsoring States specify rural applicants.

Figure 2

### State programs for value-added agriculture, number created annually, 1919-99

*New programs have appeared each year since 1983*

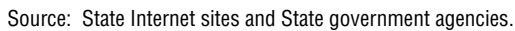


Source: State Internet sites and State government agencies.

Missouri and Delaware, for example, require that recipient businesses be rural. Other States (e.g., Missouri, Illinois) give preference to small businesses. Targeting support to small businesses may be the

most effective way to support rural development for two reasons. One, more of the locally owned small business income may stay within the local area. Two, small businesses are the better fit for rural areas.

*Location influences the type of State program offered*



establishments (97 percent) and jobs are in metro or urban counties ("Metro" as used here are counties classified 0,1,2,3 by rural-urban continuum codes; partially urban nonmetro counties are counties classified 4,5,6,7; rural counties are classified 8,9). Urban enterprises employ urban residents and some commuters from rural areas. In some sectors, such as cereals, pickles, and grain milling, all the large firms that employ 250 employees or more workers are in metro counties.



## Firm Size Affects Optimal Location

Large agro-industry businesses need to locate centrally to many farms in a large production area. Many types also need to be near packaging, related support businesses, and diverse power and water supplies. The places that are most central or accessible to many farms are, however, cities. For example, Chicago, IL, Cedar Rapids, IA, and Bakersfield, CA, are cities built on value-added agriculture. They are optimal transshipment locations. They have historically been, and still are, most accessible to large supply regions. This is also why agrifood-related support busi-

nesses also tend to be in cities. A large business is also more flexible and can adapt at lower cost when it can draw on a large and diverse labor pool.

Thus, while it is historically a chicken-egg issue, large value-added agro-industrial firms are likely to be in cities because they are input-oriented. An industry is input-oriented when the costs of shipping inputs per unit of output exceed the costs of shipping outputs. The profit-maximizing location for this type of firm is the one that minimizes transport costs for inputs. This leads many people to assume that value-added agro-

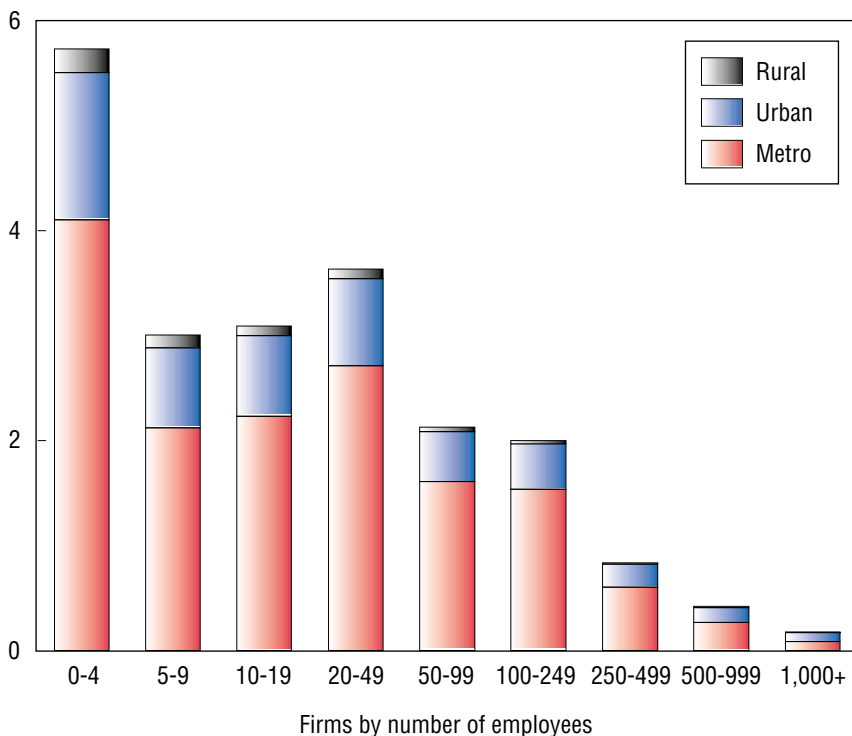
industry optimally locates in rural areas. In fact, as discussed above, large value-added agro-industry optimally locates in cities that are central to the farm supply areas and in which labor and related input industries are relatively abundant. Consequently, the positive correlation between large value-added agro-industry firm density and population density is highly statistically significant.

Small value-added enterprises are more dispersed. Almost two-thirds of all food and kindred products processing firms are small (employ fewer than 10 people). A small business that processes raw agricultural products can be profitably located near a farm in a rural area. Alternatively, small firms that supply innovative products to specific clients (for example, organic or niche foods) may need to be close to their urban market. Thus, small agrifood firms are found everywhere: near farms and near markets—rural, urban, or metro.

Two policy implications follow from this. One, if the objective is rural development, targeting support to new or small (fewer than 10 employees) businesses makes sense since rural businesses are more likely to be small. Two, if the objective is to significantly increase local demand for local farm output, urban or metro firms should not be excluded from eligibility. Public spending may be most effective if it leverages the opening of more large-scale plants in cities, because that is where those plants will be the most viable in the long run. In many sectors, a rural location would not be economically viable for large-scale plants. Even urban plants may provide opportunities

Figure 4  
**Distribution of food and kindred products processing establishments by location and employment, 1997**  
*Only 3 percent of firms in the sector are rural and few have more than 100 employees*

Number of establishments  
(Thousands)



Source: County Business Patterns, 1997, Bureau of Economic Analysis, U.S. Department of Commerce.

for some rural residents who can commute to these jobs, while increasing demand for local farm output and heightening buyer competition.

## Conclusions

Although farmers typically want more and closer agro-industry facilities, there are countervailing market incentives for private industry. State policies to promote facilities closer to farmers are likely to be effective only if there are problems with local capital markets, barriers to competition, labor immobilities and rural unemployment, or information constraints.

The effect of support for agro-industry on rural income depends on its impact on new agribusiness location, productivity, rural unemployment, and whether owners and employees are in rural areas or not.

Rural areas are best suited for small-scale agro-industry. Large agro-industry firms are generally more viable in locations that offer the most access to supply and markets and infrastructure. These locations are rarely rural; they are densely populated areas that provide labor and often house related industries, either suppliers or customers.

Thus, different tools are needed to meet different objectives. If the objective is rural development, support targeted to existing or new small businesses is likely to be more effective than support for new large firms. For local earnings to rise, the programs must either expand the employment of underemployed local residents, or increase firm productivity so that wages can grow. This also suggests targeting labor-surplus regions. If

the policy objective is to increase local demand for local farm output, support for urban or metro agro-industry firms is likely to be more effective since large firms near or in cities are the most economically viable. This policy may also increase the opportunities for a few rural residents who can commute to urban jobs, while it increases demand for local farm output, competition, and urban job opportunities.

Increased consumer demand for new and more desirable products will stimulate agro-industry activity. Some policies stipulate that grants be used to develop new uses for agricultural products, and/or to conduct market research. States also appear to realize that product promotion is an essential complement for the success of production-expansion programs. **RA**

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